Coast Guard

Shield of Freedom

May 2005

DOWN AND DIRTY

The CGC Gallatin's hard-working engineers do what it takes to keep an aging ship in top shape.

Heroes

The world's best Coast Guard

Capt. Godfrey L. Carden

During World War I, Capt. Godfrey L. Carden was named as the first captain of the port in New York City. At the time, the Coast Guard served under the Navy, and enforced rules that governed the anchorage and movements of vessels in American harbors. As a result of a devastating ship collision and explosion in Halifax, Nova Scotia, in 1917, and the tremendous increase in munitions shipments due to the war, American leaders were stirred to empower the Coast Guard to ensure that this would not happen in the United States.

The majority of the nation's munitions shipments sent abroad left from New York. The term "captain of the port" was first used in New York, and in this capacity Carden was charged with supervising the safe loading of explosives. He studied the methods then used in the port and immediately set up stringent rules and safety policies. Although these measures made it more costly for shippers to load their cargos, Carden fearlessly risked unpopularity to protect the port.

Over the next year and a half, more than 1,600 vessels, carrying more than 345 million tons of explosives, sailed from this port. In 1918, Carden's division was the largest single command in the Coast Guard. It was made up of over 1,800 men, four Corps of Engineers tugs and five harbor cutters.

Throughout his tenure, Carden performed his duties without a single mishap.

Story and photo courtesy of the Coast Guard Historian's office

Coast Guard

U.S. Department of Homeland Security

Homeland Security

May 2005

Departments

Check out Coast Guard magazine on the Web.
www.uscg.mil/magazine

On the cover

His face caked in a grease and sweat mixture, Fireman Paul Cozart emerges from under a 30-year-old rudder pitch control device on the CGC Gallatin. If the device is not properly repaired, it will severely limit the ship's ability to maneuver. Photo by PA2 Donnie Brzuska, LantArea

Features

Tackling the ice

The CGC Tackle breaks a buoy out of the ice on the Kennebec River near Bath, Maine March 18. Melting snow drains into the ice-choked river, threatening to flood towns from Gardiner, Maine, to Bath. The CGC's Bridle, Tackle and Thunder Bay break the ice to allow the melting snow to drain harmlessly into the Atlantic Ocean.

Photo by PA2 Andrew Shinn, 1st Dist.

Low Clearance

Crew members of the 87-foot patrol boat CGC Tern watch with interest as a ship carrying two giant cranes passes under the Golden Gate Bridge toward the Port of Oakland March 5. This was the final leg of a three-week journey across the Pacific Ocean from Shanghai, China. The cranes, which weigh about 1,500 tons each and tower 379 feet when extended, are among the tallest in the world and are being added by the Port of Oakland to handle newer and wider container vessels. Because of the height of the cranes, the arrival had to be carefully timed with low tide. The clearance between the cranes and the bridge was less than 10 feet. The Tern helped enforce a moving safety zone around the ship to ensure an uninterrupted passage through San Francisco Bay and into the Port of Oakland.
Photo by PA1 Alan Haraf, 11th Dist.

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Up Front

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Up Front

Test fire

A round ejects from an M-60 machine gun during a Coast Guard gun exercise 30 miles east of Boston March 22. Coast Guard members recertify on the M-60 every six months to stay prepared for homeland security duties.
Photo by PA2 Andrew Shinn, 1st Dist.

CGC Hamilton returns home after 90-day patrol

SAN DIEGO, March 28 — The CGC Hamilton, based in San Diego, returned home today after completing a 90-day patrol that began in December.

The Hamilton crew traveled as far as Ecuador during their patrol of the Eastern Pacific ocean, working primarily for the Joint Interagency Task Force South, based in Key West, Fla.

Additionally, while performing the Coast Guard's law enforcement, homeland security and alien migrant interdiction missions, the Hamilton was involved with intercepting several drug-smuggling "go-fast" vessels.

On Jan. 16, just a few days after arriving at their first patrol area, the Hamilton's crewmembers boarded the Colombian fishing vessel Andres Abel 1,500 miles west of Colombia. The Hamilton's boarding team, led by Lt.j.g. Robert Hill and CWO Randall Johnson, began a four-day marathon inspection of the boat's compartments.

Two days later, a second boarding team led by Lt.j.g. Torrey Bertheau discovered a hidden compartment under a water tank. Once the team accessed the hidden compartment, they found more than 5,800 pounds of cocaine tightly wrapped into individual bricks.

Additionally, on Feb. 19, the Hamilton's crew conducted two more drug busts.

But, the crew of the Hamilton was challenged with a different mission area on the morning of Feb. 27. The cutter's crew received word that a small fishing vessel nearby was overloaded with migrants. Within a few hours, the cutter arrived on scene with a Navy ship that had discovered 159 Ecuadorian migrants aboard a 50-foot fishing vessel. Five days later, all 159 migrants were safely returned to the government of Ecuador.

During a final port visit to Puerto Vallarta, Mexico, the Hamilton crewmembers worked with the local Navy League, delivering a much needed anesthesia machine destined for the local naval hospital. The machine was co-funded by the Navy League and the International Friendship Club. Once installed, the machine would not only service the needs of the Mexican navy but will also enable operations on local children with cleft palate problems.

During their visit to Puerto Vallarta, the Hamilton's crewmembers volunteered to paint a local center for young women. Cmdr. Joe Hester, the Hamilton's executive officer said, "It was fun to watch the captain and some of the most junior members of the crew, shoulder to shoulder, covered in paint, working together."

Seaman Steven Gomez said of his first patrol with the Hamilton, "The patrol was long, and while it was tough to be away from home, I believe that each experience was worth it."

Story and photo by Ensign Matt Dowthit, CGC Hamilton

A smallboat crew from the CGC Hamilton assist 159 Ecuadorian migrants found aboard a 50-foot fishing boat in the Eastern Pacific Feb. 27.

USCG, local agencies respond to fatal plane crash

A helicopter from Air Station Port Angeles transports a man injured in a plane crash to a local hospital.

SEATTLE, March 29 — One person died and another was rescued after a single engine plane crash today east of Orcas Island, in Puget Sound.

Rescuers from the San Juan County Sheriffs Department, the Coast Guard, Navy and civilian vessels in the area swarmed to the reported crash site near Lawrence Point, after a witness on shore reported the crash to 911.

A San Juan County Sheriff's rescue boat pulled the two people from the water. One was flown by Coast Guard helicopter to Saint Joseph's hospital in Bellingham, for further treatment for injuries and hypothermia.

The second person, who was unconscious, was transported to shore where emergency medical technicians provided CPR, and was later pronounced dead.

A San Juan County Sheriffs boat, two Coast Guard helicopters from Air Station/Group Port Angeles, Wash., a Navy helicopter from Naval Air Station Whidbey, a 47-foot motor lifeboat from Station Bellingham, the CGC Sea Lion from Bellingham, and the civilian tug Response were involved in the search and rescue effort.

Story and photo by PA3 Adam Eggers, 13th Dist.

Coast Guard

America's
Shield of Freedom

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Subscriptions: Call (202) 512-1800 or write to Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. To subscribe online follow the link at our web site at www.uscg.mil/magazine.

Submissions: We need your stories, photographs, comments and suggestions. Deadline for submissions is the 15th of each month. Articles will appear 1.5 months after that deadline. Submit your stories to: U.S. Coast Guard (G-IPA-1), 2100 2nd Street, S.W., Washington, DC 20593-0001, or e-mail them to cgmag@comdt.uscg.mil. For more guidelines, visit the magazine Web site and click on "submissions" or call the editor at (202) 267-0928.

Letters to the editor: Please limit remarks to 150 words or less. No names will be withheld. Provide rank, first and last name, phone number and unit. Letters may be condensed because of space. Not all letters will be published.

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Spot News

BOSTON, April 20 — BM1 Kirk Mckay, from Station Southwest Harbor, Maine, was announced as the winner of the Coast Guard's 2004 Cmdr. Ray Evans Outstanding Coxswain award today. The award is presented annually to a coxswain who has demonstrated excellent performance and superior, technical and professional leadership and seamanship.

PORTSMOUTH, Va., April 12 The CGC Tampa returned home today following a 42-day patrol in the Windward Passage between Cuba and Haiti. During the patrol, Tampa crewmembers performed many of the Coast Guard's missions, including drug interdiction, search and rescue, as well as verifying safety of life at sea requirements.

TOLEDO, Ohio, April 9 After their boat sank in Maumee Bay, 11 people were rescued from the water by a good samaritan and Station Toledo today. A person on board the sinking boat was able to call 911 using a cell phone. By 2:15 p.m., everyone was transported safely to Station Toledo. Three people were treated for mild hypothermia.

MIAMI, March 30 — The CGC Key Biscayne repatriated 40 Cuban migrants to Bahia de Cabanas, Cuba, today. The migrants were from two groups stopped by the Coast Guard March 26. The first group of 10 were on a raft that was located by the CGC Decisive about 22 miles south of Key West. The migrants were safely embarked by the crew of the Decisive. Another 30 migrants were interdicted during a failed smuggling attempt after their go-fast was located by an HU-25 Falcon jet from Air Station Miami about 24 miles south of the Marquesas Islands. A response boat from Station Key West was able to safely stop the boat and remove the migrants, along with two suspected smugglers.

SEATTLE, April 12 — Salvage crews raised the submerged fishing vessel Semidi today from Shilshole Bay. The vessel has been towed to an Army Corps of Engineers debris collection area north of the Hiram M. Chittenden Locks. The Coast Guard and Washington Department of Ecology supervised the recovery effort. Crews removed 1,300 gallons of oily water from the vessel. Divers confirmed over the weekend that vent openings on the tanks were closed, which prevented a major fuel spill. Oil-containment boom surrounded the Semidi during the recovery as a precaution.

JUNEAU, Alaska, April 6 — The crew aboard the CGC Liberty terminated a fishing vessel's voyage near Ketchikan today after boarding results revealed safety violations. The Liberty's crew boarded the Neli Bly about 13 miles south of Ketchikan about 11:30 a.m., where the team found a survival suit needing repair and no primary lifesaving equipment such as a required buoyant apparatus. The boarding team also reported that the Neli Bly contained insufficient visual distress signaling equipment, the life ring needed to be repaired and the operator didn't have official documentation on board. Neli Bly's operator took the boat to a nearby cannery where Coast Guard marine safety officials expected him to correct his discrepancies.

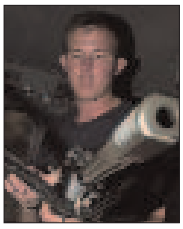
WebHot!

http://cgvi.uscg.mil

The Coast Guard Visual Imagery Web is the Coast Guard's official site for imagery and recently reached a milestone of capturing 10,000 images online.

This is the most comprehensive place to download Coast Guard photos taken from around the world.

This site is maintained by the G-IPA-1 staff at Coast Guard Headquarters and is updated daily with the latest images from Coast Guard-wide photographers, including public affairs specialists.



Images are saved at a dimension of five-by-seven inches and with a resolution of 300 dots-per-inch. Images can also be downloaded with a resolution of 72 dots-per-inch.

Visitors to the site are required to log in with the user name and password of both "uscg."

The CGVI is an excellent resource that speaks for itself, so log on and check it out!

Think your Web site is unique? E-mail:
jzettles@comdt.uscg.mil

NEW SEASON

BOSTON, April 11
Members of ISC Boston's Color Guard represent the Coast Guard during the ceremony of the opening day game against the Yankees at Fenway Park today. Wounded combat veterans presented the championship rings to the 2004 World Series Champions. Color Guard members included: EM2 Joseph Urban, YN3 Brandi Curtis, YN3 Ken Pendergast and SK3 Hector Traverzo.

Photo by PA3 Lisa Hennings, 1st Dist.

That was then, this is now...

CG Photo

Doug Corry, a Coast Guard auxiliarist with Flotilla 63 in New Orleans,a vessel safety check examiner, checks off the required safety items on a recreational boat owner's safety check form at the Harris County Boat Ramp April 9. Auxiliarists from Division 6, and the active-duty crew of the CGC Clamp conducted their Second Annual Safe Boating Day on Clear Lake, Texas.

NOW...

Today, the Coast Guard Auxiliary is an invaluable force serving the Coast Guard and boating community. The Auxiliary includes more than 30,000 members who annually contribute more than two million man hours to their missions. Auxiliarists assist the Coast Guard in non-law enforcement missions like public education, vessel safety checks, safety patrols, search and rescue, maritime security and environmental protection and Coast Guard Academy introduction programs for young people.

THEN...

The Coast Guard Auxiliary was first established by the Coast Guard Reserve Act of 1939. This "reserve" force was created to oversee the safety of and educate an ever-growing boating public. The establishment of this highly organized, civilian force was, at the time, unique to the federal government.

Keel laying for national security cutter held in Pascagoula, Miss.

PASCAGOULA, Miss., March 29 — Meryl Chertoff, wife of Secretary of Homeland Security Michael Chertoff, initials a placard today that will be displayed aboard the Coast Guard's first national security cutter being constructed at the Northrop Grumman shipyard here.

The ceremony to authenticate the keel confirms the ship's keel is "truly and fairly laid" for the first ship of this class of highly-capable, technologically-advanced, multi-mission cutters for the Coast Guard and Department of Homeland Security.

The Northrop Grumman Corporation is building the ship under a contract from Integrated Coast Guard Systems LLP, a joint venture of Northrop Grumman and Lockheed Martin.

Story and photo by PA2 Kyle Niemi, 8th Dist.

Meryl Chertoff, wife of DHS Secretary Michael Chertoff and sponsor of the new national security cutter signs a placard during a keel laying ceremony in Pascagoula, Miss., March 29.

CGC Sequoia visits remote country

KOLONIA, Pohnpei, March 13 — The CGC Sequoia arrived at Pohnpei, Federated States of Micronesia, today to conduct a joint law enforcement exchange with the Federated States of Micronesia National and Pohnpei State Maritime Police.

During the Sequoia's stay, high school students from Seventh-Day Adventist High School and Calvary Christian Academy received a special presentation about the Coast Guard and its missions by the ship's commanding officer, Lt.Cmdr. Matthew Meilstrup and Sequoia crewmembers Lt. j.g. Collin Bronson, YN2 Ben Lizama and FS3 Grant Williams. The Sequoia and crew departed March 16 to service the aids to navigation in Kwajalein Atoll.

En route to Pohnpei, the Sequoia's crew was diverted to assist an ailing crewman from a Japanese fishing vessel. The buoy-tender's crew rendezvoused with the vessel, transferred the patient and sailed for Chuuk. The ailing man was taken to the hospital in Chuuk for further medical attention.

Story and photo courtesy of CGC Sequoia

Students from a local high school in Pohnpei pose with Ensign Soumangue Basse during a visit aboard the CGC Sequoia.

ALL SECURE

BEHM CANAL, Alaska, March 9 — The CGC Anacapa enforces a Naval Vessel Exclusionary Zone around the USS Columbia during a security patrol here today.

Photo by Lt.j.g. Herbert Law, CGC Anacapa

After a six-month voyage to Antarctica, filled with unexpected challenges and tragedy, the crew of the CGC Polar Star find themselves finally sailing ...

THE LONG

TROPICAL PORT
The CGC Polar Star pulls into American Samoa and prepares to moor and unload relief supplies for the outlying islands hit by Hurricane Olaf.

Way Home

Story by PA1 Amy Thomas, PacArea and PA2 Brooksann Anderson, 14th Dist.

PA2 Brooksann Anderson, 14th Dist.

PA2 Brooksann Anderson, 14th Dist.

Cargo ferry
Helicopter tie down crews on the CGC Polar Star attach a bundle of supplies to an HH-65 Dolphin helicopter, which will fly them ashore for local distribution.

A journey that started last fall to the sound of bagpipes began its final leg Feb. 12, when the CGC Polar Star left Antarctica and headed home to Seattle after a six-month deployment marked by tragedy, frustrating hurdles and historical firsts.

The Polar Star, a 399-foot polar icebreaker, and its 160 crewmembers departed Seattle Nov. 4, 2004, for the Coast Guard's 50th Antarctic mission in support of Operation Deep Freeze. The Polar Star makes the 28,700-mile journey annually to deliver fuel and food to the National Science Foundation research station in McMurdo, and to break open the channel to allow supply ships to reach the research station.

Supply ships deliver about 40 million pounds of food, vehicles, fuel, linens and other critical items for McMurdo's year-round research and support staff, as well as the staff due in for next year's research season. Aircraft bring supplies to McMurdo on a regular basis, but they cannot move the required volume of cargo that ships can carry.

"Without these supplies, the station would have to be evacuated and placed in caretaker status," said Cmdr. Craig Lloyd of the Coast Guard's Pacific Area Operations division in Alameda, Calif. "Not only do the supplies keep McMurdo operating, they keep [Amundsen -Scott] South Pole Station operating too."

Built in the 1970s, the Polar Star's red hull is made of reinforced steel and at varying speeds is capable of breaking ice up to 21 feet thick. Its specially designed bow rides up onto the ice, which then breaks under the ship's weight. It also has a system that allows rapid shifting of ballast to increase the effectiveness of the ice-breaking. The breaker can carry up to 400 tons of cargo, and two HH-65 Dolphin helicopters.

On its nearly three-week journey toward Antarctica, the Polar Star made stops in Honolulu, and the Australian cities of Sydney and Hobart. The ship's visit to Honolulu ended in tragedy when one of its crewmembers, 34-year-old IT1 Mark Mueller, died during a recreational dive accident. Mueller, originally from the Chicago area, was diving with other crewmembers near a wrecked vessel when he lost consciousness. Mueller was pulled from the water but efforts to revive him failed.

"We were down [emotionally] for a long time," said Lt.j.g. Collin Bronson, the Polar Star's public affairs officer. "Mark was well liked and it was tough to lose him, especially at the beginning of a long deployment."

The Polar Star and its crew continued south toward Antarctica, making stops in Sydney and Hobart to rest and make minor repairs. While in Hobart, which is on the Australian island of Tasmania and is the last stop before heading toward Antarctica, approximately 20 NSF scientists boarded the Polar Star to make the remainder of the journey south. The ship arrived at the ice Dec. 18, and discovered that this year the ice's edge, which in past years extended 30-40 miles from McMurdo Station, extended more than 80 miles from the research center.

The wind normally pushes the ice away from Ross Island, where McMurdo is located. This year, though, icebergs that had broken away from the

Ross Ice Shelf several years ago gradually migrated west to a point northeast of McMurdo Sound creating a barrier to the fast ice's route to the open ocean. Fast ice is sea ice that is immobile due to its attachment to a landmass.

The significant amount of ice presented challenges for the Polar Star. Last year its sister ship, the Polar Sea, made the trip south to help break open the channel into McMurdo. This year, however, the Polar Sea is drydocked for repairs.

The Polar Star's crew took a collective deep breath and plunged in. It wasn't long, though, before even the stalwart Polar Star suffered under the harsh ice conditions. The bolts located on the cover of the propellers were jarred loose from the extreme icebreaking, a condition that could cause the system to come apart.

"All that hard work takes its biggest toll on the ship, and extended ice breaking simply beat up an already aging ship," Bronson said

Seven divers and 6,000 pounds of equipment contracted by Naval Sea Systems Command from a Louisiana-based company were flown into McMurdo on a C-141 airplane. The divers worked in 10-hour shifts and completed repairs to the ship's propeller system about three weeks later.

While the Polar Star was undergoing repairs, the National Science Foundation chartered the Russian icebreaker Krasin from the Far East Shipping Co., when it became clear that the ice condition was severe enough to require a second icebreaker.

Back in the saddle again, the Polar Star resumed breaking the channel into McMurdo for the supply ships. Because the Polar Star has greater icebreaking capabilities than Krasin, it focused on the last 14 miles leading into McMurdo, while the Krasin concentrated its efforts farther out.

Because of the Polar Star's and Krasin's efforts, Navy fuel tanker Paul Buck made it to McMurdo Station's ice pier in late January and unloaded about eight million gallons of fuel, and the cargo vessel American Tern arrived Feb. 3 and unloaded its cargo.

The Polar Star had to depart by March 1, a goal that was attainable partly due to the joint effort with the Russians.

"We had Krasin working most of the time that we were down," Bronson said. "Also, we had made so much progress before the [mechanical] casualty, we still finished ahead of schedule."

The Polar Star served as an underway research platform for the scientists onboard. During their deployment, the Coast Guard crewmembers aided NSF scientists with several projects, including interannual variability in the Antarctic Ross Sea, which is a project that measures climactic changes that affect the entire world. They also completed several atmospheric tests on the trip down to Antarctica.

President's Day weekend, in the midst of the cruise back to Seattle, the Polar Star got the call that it was needed elsewhere: the Samoan and American Samoan islands had suffered extensive damage from Tropical Cyclone Olaf, a category five storm that had ripped through the region earlier in the week. The Federal Emergency Management Agency needed thousands of pounds of relief equipment moved, and the Polar Star was the only platform in the area with the capacity to move that much cargo.

Supply ships deliver about 40 million pounds of food, vehicles, fuel, linens and other critical items for McMurdo's year-round research and support staff. "Without these supplies, the station would have to be evacuated and placed in caretaker status," said Cmdr. Craig Lloyd of PacArea's operations division.

"We were the perfect asset; we were in the right place and had the capacity to carry the load," said Capt. Richard "Mac" McCullough, Polar Star's commanding officer. "It was a great way to break the monotony of the sail home, and we were going to help those in need. There was no downside."

The cutter altered its course and arrived in Pago Pago Feb. 21. Over the next two days, sporting sunburns and sweaty shirts in the tropical climate, the crew worked from dawn to dusk loading bottled water, tents, tarps and engineering kits onto the ship's decks. Everyone on board, regardless of rank or job title, helped in one way or another to ensure that the 70,600 pounds of life-giving supplies got to the people living on the islands of Tau and Ofu.

"Seeing those people's faces as we were pulling up to the dock was a feeling like no other," said BM1 Joseph D. Shiver of the Polar Star. "We never get to do missions such as these, being a polar roller, but it is the reason we all came in [the Coast Guard]; to help others."

The Polar Star left American Samoa Feb. 23 and, after a brief port call in Honolulu, the cutter finally took its crew home, ending a trip marked by tragic loss, tough challenges and historical achievements. Upon their return to Seattle, amid the warm embraces of family and friends, the crew will surely feel the satisfaction of closing the chapter on this trip and preparing for the next.

Dedicated t

Story and photos by PA2 Donnie Brzuska, LantArea

They're a rough bunch. Their uniforms are stained with dirt, grease, and sweat. Dirt and oil seem to be permanently affixed to the underside of their fingernails. In most other Coast Guard environments, this most likely wouldn't be accepted, but in the engine room of the CGC Gallatin, it's more than just accepted — it's expected.

At 11 p.m. far in the bowels of the Gallatin's engine room, MK3 Joe Story works desperately with several of his shipmates to try and get a 30-year-old pitch control device working. Liberty was granted to the rest of the crew more than eight hours earlier, but most of the engineering department is still toiling away in the 130-degree heat of the engine room while their shipmates are enjoying the nightlife in Key West, Fla.

This is nothing unusual for the men and women who make up the Gallatin's engineering department as they struggle to keep the Vietnam-era vessel running. If the rest of Gallatin's crew is the eyes, ears and hands, the Gallatin engineering department is considered the backbone of the ship by many of their shipmates — the foundation on which every operation is built.

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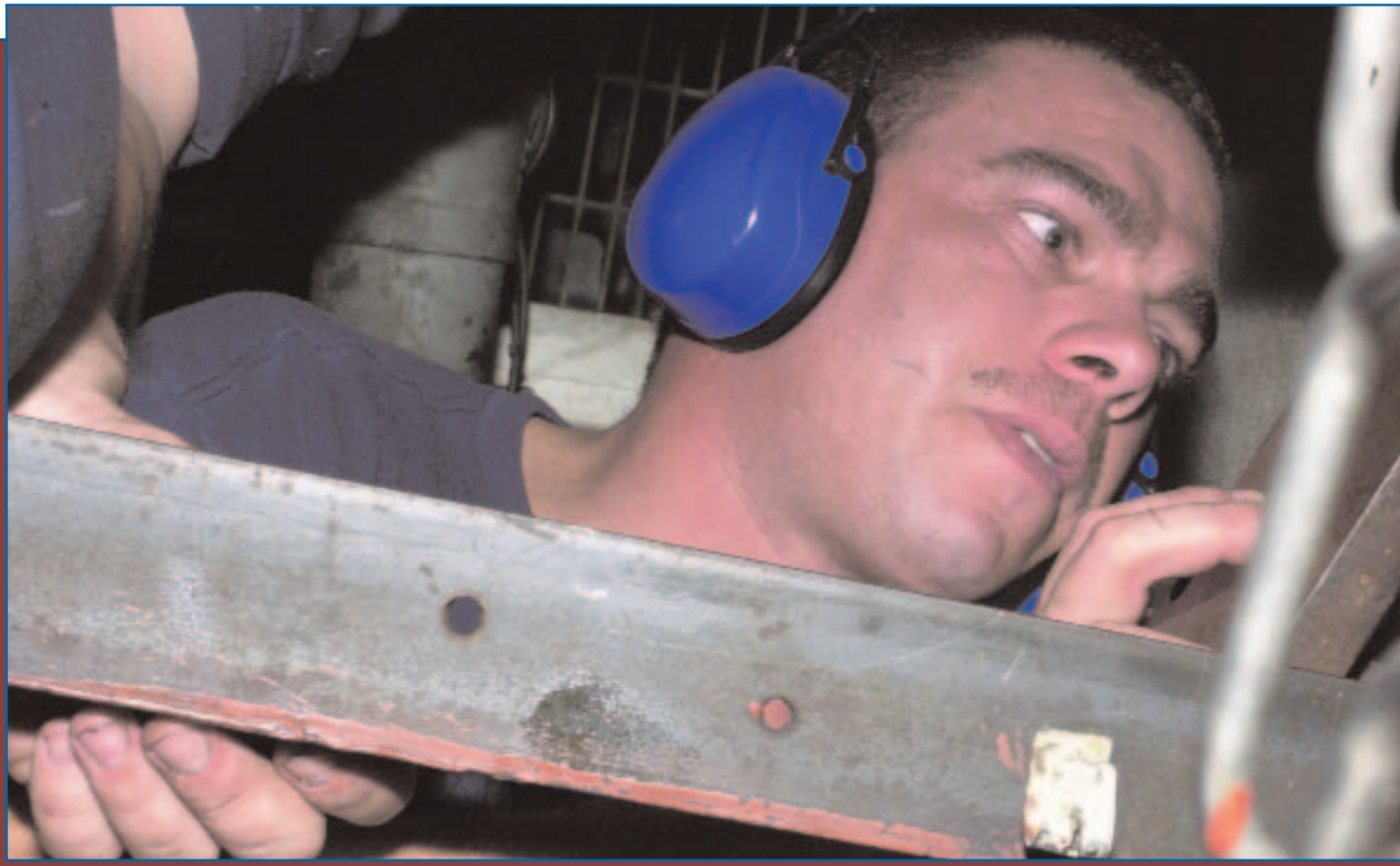
"Those guys are probably the hardest working people on the boat. When everyone else is getting liberty, they're still working to keep this boat going," said OS2 Brian Hampton, who works in the Gallatin's combat information center. "They've got to love what they do because that's the only way you could work like that."



to the job

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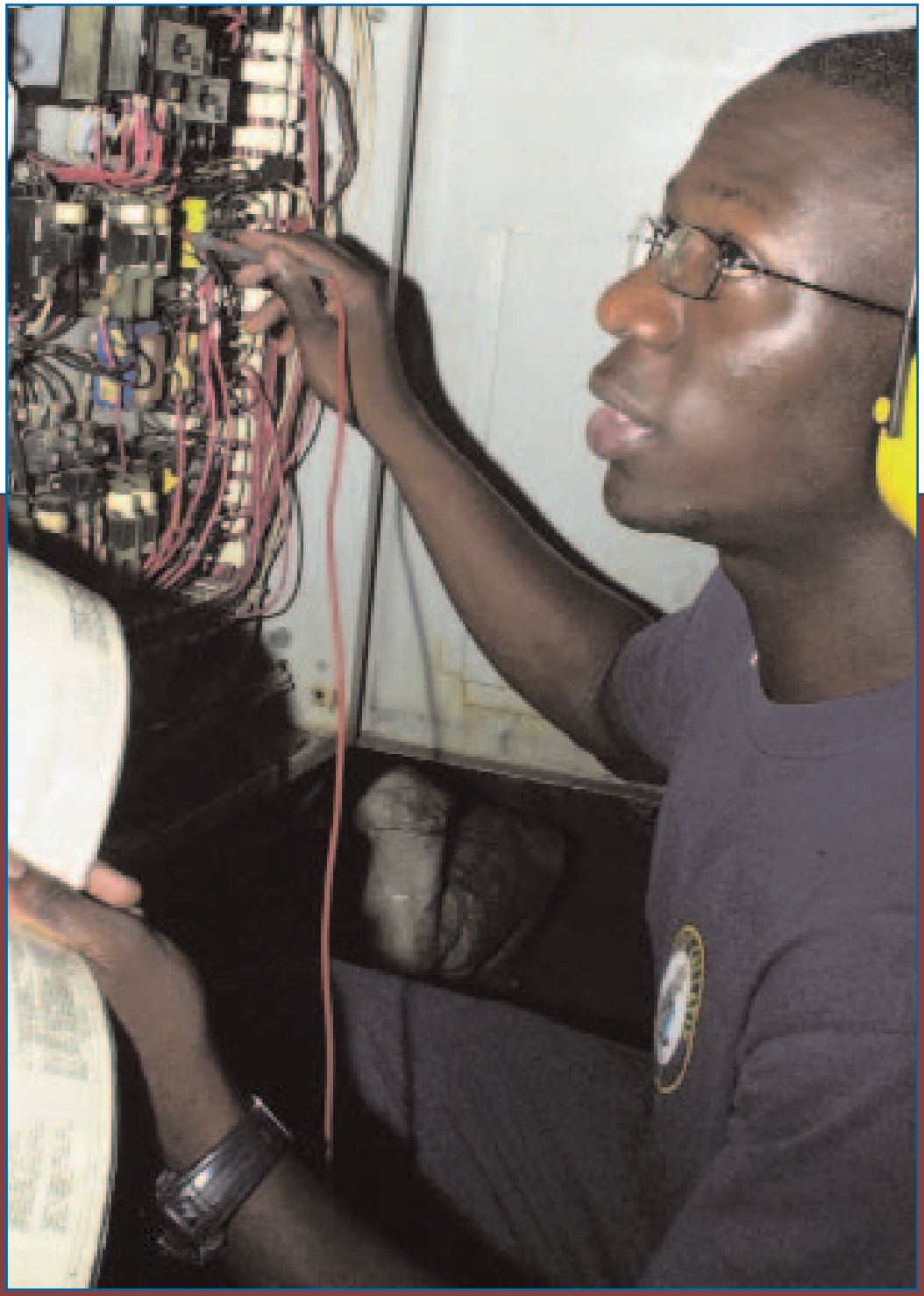
They do love what they do, and they are a tight knit group who support each other. They are all for one and one for all.

During muster in the ship's engineering control room following a long work-day, the main propulsion assistant, CWO Miles Randall, is trying to convince his crew to take off and enjoy the ship's port call. Suddenly, a fireman pipes up that he has to replace a



TIGHT SQUEEZE
Left: Crouched low and tight, MK2 Buddy Hinkle tries to align two pieces of machinery deep in the bowels of the ship.

LIGHTS ON
Fireman Archibald Newland works to restore power to a nearly 30-year-old boiler in the Gallatin's engine room.

chain cover on a piece of machinery. Almost instantly the whole department volunteers to stay. Randall agrees to let a few stay behind but orders the rest to leave.

"I couldn't ask for a better team. Few could even dream of having their department volunteering to stay behind, but it happens to me every single day," said Randall.

The engineers on Gallatin are by no means workaholics. They're simply fighting a battle to keep an aging ship running to do the missions of the Coast Guard. The Gallatin was launched in 1967 from Avondale Shipyards in New Orleans and commissioned in 1969. While some of the engineering systems were replaced during its two-year fleet renovation and modernization program in the late 1980s in Portland, Maine, many of the systems have gone well over the 30-year mark.

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This poses a unique challenge to the engineers.

"I call up some of the companies who made our original stuff, and they tell me they haven't made that part in 15-to-30 years. Sometimes we have to improvise to keep this old vessel running," said Randall.

This has surprisingly made the engineers on the Gallatin that much more determined to keep the old vessel running."

"We're dedicated to our jobs, and we're dedicated to this ship. We do everything we can to prevent problems with preventative maintenance services before they ever happen," said MK2 Buddy Hinkle.

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Even with the extensive preventative maintenance, the engineers put in more than 800 hours each month maintaining the old engines and auxiliary machinery.

After nearly four days of continuous work by the engineers in Key West, the crew is preparing the Gallatin to depart for the beginning of their counternarcotics patrol. Going through the procedures for starting the ship, the pitch control gets stuck between automatic and manual mode again. Almost instantly, several engineers are down in the depths of the engine room trying to remedy the problem while electrician's mates are in the engine control room trouble shooting the electrical side of the system.

They isolate the problem quickly, but the ship has been delayed for several hours. The engineers are noticeably unhappy.

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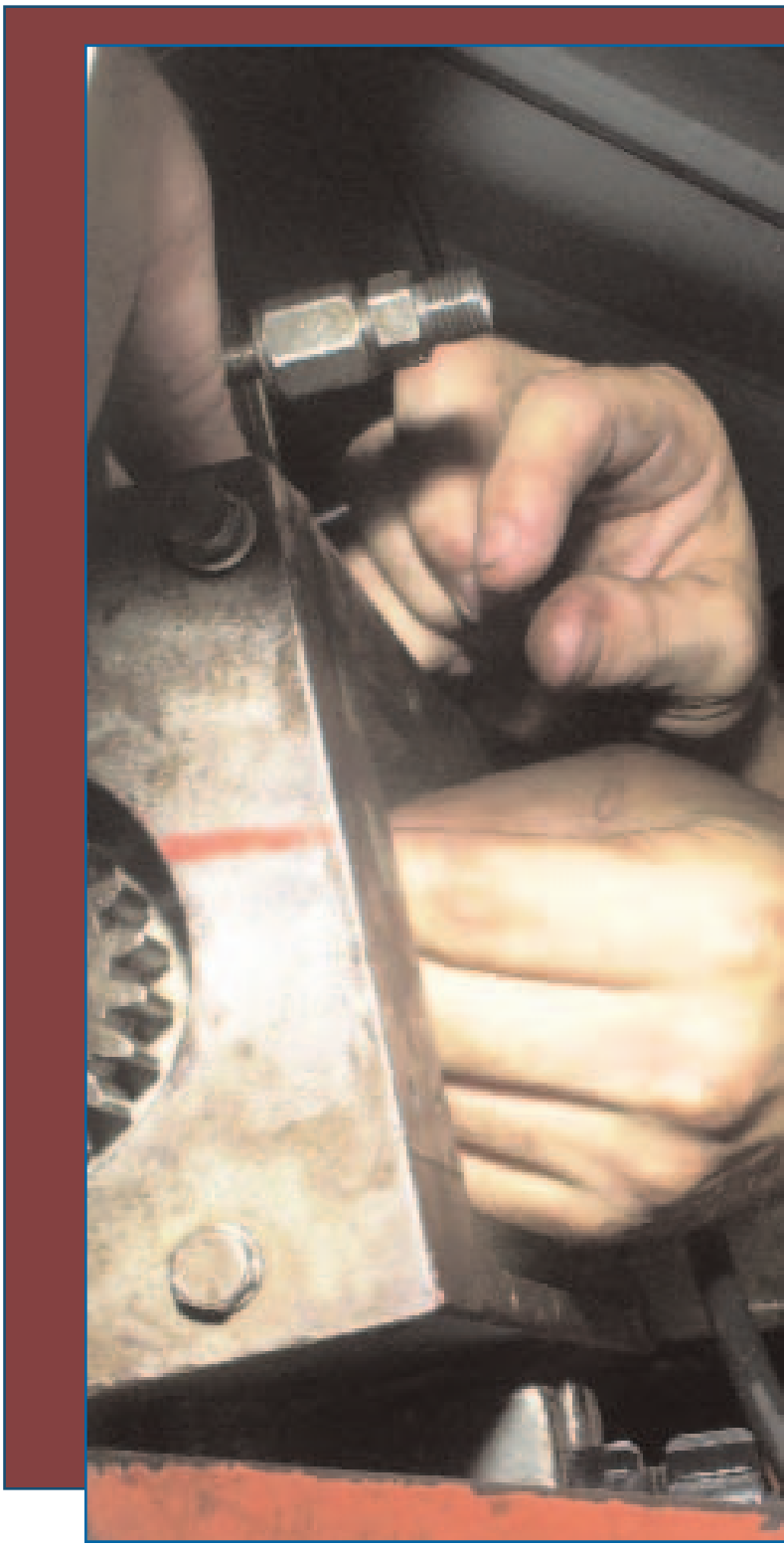
"This is our job to keep this ship running, but there are some things we just can't control. When the whole crew has to wait to get underway, it's disappointing for us," said Hinkle shortly after walking back into the engine control room.

Through great adversity and years of trial and error, the engineers aboard the Gallatin are beginning to devise better ways of operating the engineering systems on board that will lead to fewer problems.

"All the 378s share information about different ways to prevent problems in these old engines, so you'll have less chances of failure," said EMC Joseph Mazzola, an engineering watch stander.

No one understands the challenges and hard work the engineers face everyday more than the Gallatin's commanding officer, Capt. Michael Parks.

"I know those guys are doing the best they can with what they've got. They work hard to keep this ship running, and I'm not going to get mad if something doesn't work. You can't control that, but you can control your reaction. If something breaks, I know they're already attacking the problem," said Parks



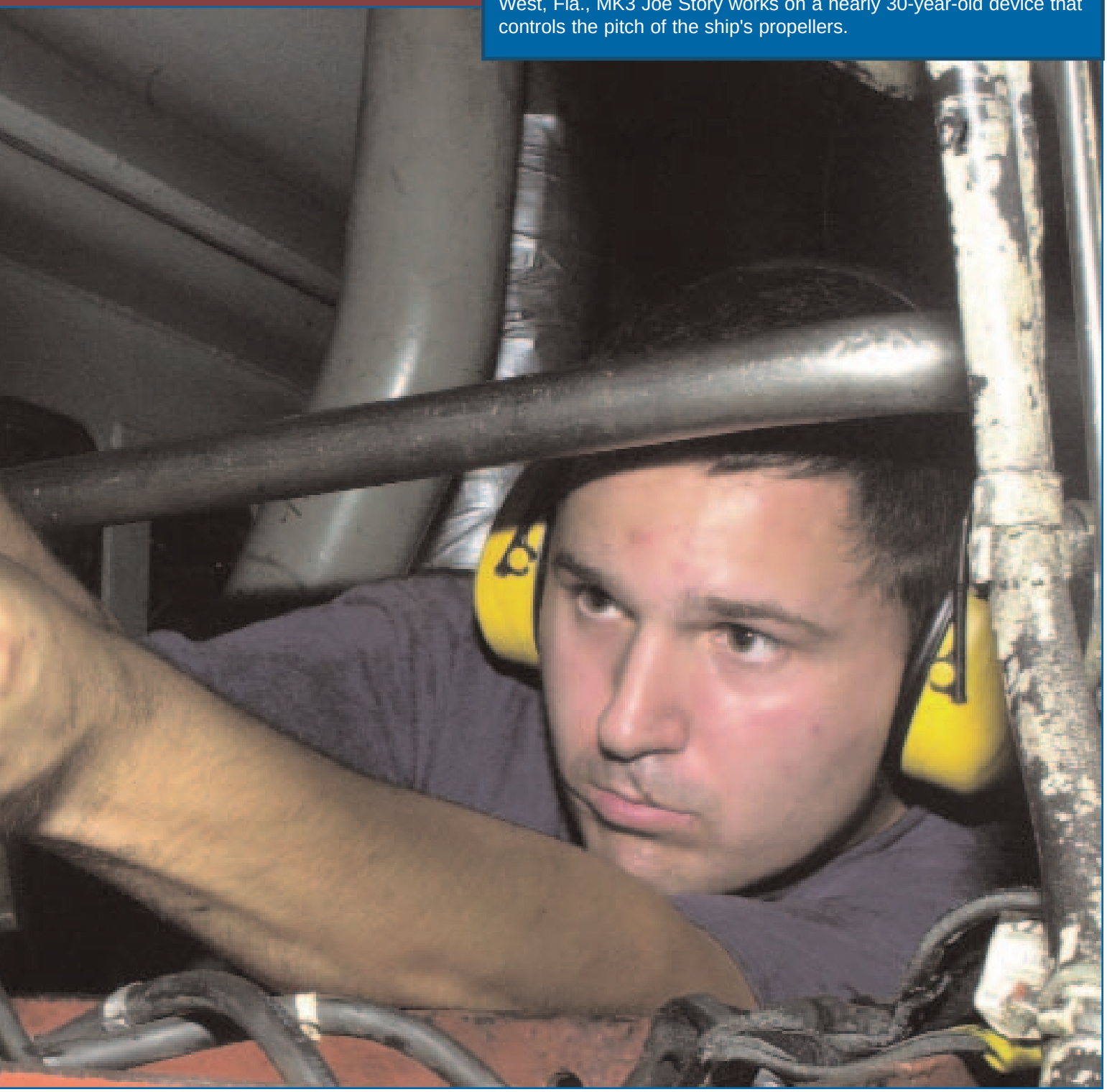
as the ship pulled out of port in Key West.

The Gallatin isn't the only ship with these engineering challenges, which is why the Coast Guard is pursuing a long-term replacement of what was dubbed unofficially as its legacy fleet through the Deepwater program. Deepwater is aimed at replacing all of the aging cutters with newer and more capable ships. With the first WMSL, or maritime security cutter large, scheduled to roll off the production line in 2007, the engineers on the Gallatin will have to rely on what they've relied on for so many years until it is replaced — each other.

Teamwork and dedication are reoccurring themes among engineers throughout the Coast Guard, and nobody represents those attributes more than the Gallatin's engineering crew. Both are the product of men and women who bond together to triumph over adversity, keeping this portion of the world's best Coast Guard in business.

Working into the night

Long after many of his shipmates left for a night on the town in Key West, Fla., MK3 Joe Story works on a nearly 30-year-old device that controls the pitch of the ship's propellers.



Is the Coast Guar

Story and photos by PA1 Sarah Foster-Snell, U.S. Coast G

In an effort by the Coast Guard to address the problem of unabated fossil fuel consumption and harmful emissions, a team of Coast Guard cadets are working on the second phase of a project studying the feasibility of Coast Guard vessels operating on biodiesel fuel.

A 41-foot utility boat, nicknamed "soy boat," has been outfitted with twin engines fed by separate fuel tanks that cadets will use to run a side-by-side comparison of biodiesel to regular diesel. One of the engines will run on a B20 blend of biodiesel fuel — consisting of 20 percent soy oil to 80 percent traditional diesel. Researchers have found that soy-based oil, a renewable resource, generally behaves better in cold weather when compared to most other forms of biodiesel fuels and is therefore the preferred choice of a non-petroleum-based product for all-weather use.

For five mechanical engineering majors — First Class Cadets Rebecca Lenberg, Richard Szoka, Ryan Hawn, Michael Adams, and Steven Van Derlaske — being selected to pursue this senior capstone project is a chance to be part of cutting-edge, emerging technologies.

"This is probably the first full-scale study of biodiesel in a marine environment," said Dr. John Bausch, a mechanical engineering professor and principal advisor for the cadets' biodiesel project.

Down in a lab at MacAllister Hall, home of the Academy's Engineering department, are eight marked glass jars. Cadet Szoka says each jar will contain a biodiesel sample that will be observed.

The cadets' project is a collaboration between the Coast Guard Office of Naval engineering environmental division, Coast Guard Academy mechanical engineering section and the Coast Guard Academy waterfront division, who are all actively participating in evaluating biodiesel as a viable fuel source for the Coast Guard.

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"We're looking forward to working with cadets in this cutting-edge project," said BM2 Michael McLeod. "We've got the oldest 41-foot boat in the fleet and it's pretty exciting to use this as the prototype."

Last year, during the first phase of the project, cadets at the Academy began the process to determine if biodiesel could be an alternative fuel source by using an old generator from a decommissioned 82-foot patrol boat. They ran load and performance tests on the fuel and brought the Coast Guard up to speed on various aspects of the fuel.

This year, cadets are moving into the second of three phases of the biodiesel project.

An important aspect of phase two is the experimental test plan that will include autonomous monitoring of such things as fuel pressure, fuel filter differential, horsepower, and engine rpms. To collect this information, a data system and sensors will be installed on board the soy boat.

The third and final phase will include a

FRIENDLY FUEL
BM2 Michael McLeod and Cadet Richard Szoka examine a small boat engine and fuel tank coverted to use biodiesel fuel.

d's future green?

Guard Academy

limited and controlled use of biodiesel by select Coast Guard working units.

The Coast Guard bagen exploring the viability of biodiesel as an alternative fuel source in 2000. An in-depth "paper study" conducted by the Coast Guard Engineering Logistics Center was presented by environmental engineer Hari Bindal. The paper confirmed that, with further research and testing, biodiesel might be a suitable alternative fuel for the Coast Guard fleet.

Cadets became involved soon after that study. Cadet Michael Adams immediately was attracted to the project for a variety of reasons.

"Other [senior capstone] projects were not quite as concrete, and the ball was already rolling here," Adams said. "Funds were set aside, there was interest from the chain of command, and we had a test platform."

"Now that the project's underway, I've learned more about the real need for alternative fuel sources," said Adams. "It would be awesome to help lead the Coast Guard through uncharted waters, and perhaps even be the first of our government's agencies to make a real step at 'turning green'."

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Biodiesel is the trade name for any common diesel fuel that has been blended with a catalyzed vegetable or animal oil. While it may sound tempting to jump on the "green" bandwagon, the Coast Guard still needs to comply with federal standards, said Lt.j.g. Andy Goshen, environmental division task leader at the Coast Guard office of Naval engineering. Specifically, the service is interested in vegetable-based feedstocks that conform to American Society of Testing specifications.

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The Coast Guard is currently focusing on the standard bio variety known as B20, a 20 percent blend.

"The fuel [blend] significantly reduces the amount of carbon monoxide, hydrocarbon and sulfur emissions that enter the atmosphere," said Lt. Cmdr. Eric Ford, another mechanical engineer instructor here who has a keen interest in the project. "In addition, it has a higher amount of lubricity compared to petroleum diesel, so the time between engine overhauls should decrease."

Biodiesel's an attractive "green" solution because it's clean burning and requires no engine modifications, said Cadet Szoka.

But even though biodiesel shows promise, it must still pass all tests the cadets can throw at it.

"From a technical aspect, there are possible show stoppers that are specifically being monitored during the cadet's project," said Lt. j.g. Goshorn. "There's concern that biodiesel may not perform during the extreme cold conditions of the winter, that the marine environment may negatively impact the fuel's stability, or that the fuel may interact in a negative manner with the utility boat's gasket material."

However, a cold snap in New England posed the perfect opportunity for cadets to address the issue of biodiesel's effectiveness in cold weather. "This is the first of two sets of data we'll be gathering for this experiment," said Dr. John Bausch. "The cadets only started the second week of January, and we're continuing until the same time next year."

Consequently, the low-tech glass jar samples serve to verify two key issues, according to Dr. Bausch. While it's out in the cold, it will indicate any reaction in cold weather, and secondly, it will demonstrate whether the organic and synthetic combination might separate.

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"If this project is successful the Coast Guard will have an immediately available alternative fuel source," said Lt. j.g. Goshorn. "While it would still require a significant amount of petroleum-based diesel, it takes a step in the right direction to reduce petroleum consumption."

All the cadets hope their project will make an impact on the maritime industry and in their personal lives. "It's an intermediate step in that direction," said Cadet Lenberg. She believes the project will develop standards to make biodiesel more commonplace in the industry. She asserted, "There's already strong climate of using biodiesel in the Midwest."

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Currently, biodiesel can cost anywhere from 5 cents to 15 cents more than traditional diesel; however, that gap is shrinking every day. And its lubrication properties may help reduce the cost of maintenance, which can offset its higher price. Infrastructure such as pump stations and fuel companies that carry biodiesel continue to grow as well. Currently, biodiesel retailers are commonly found in heavy agriculture areas (like the Midwest where vegetable-based feedstocks are plentiful), but this trend to is starting to change.

For Cadet Szoka, it's exciting to be a part of a project that is historical and career-changing. "Some day the Coast Guard may be using these alternative fuels, and we'll all be able to say we were a part of getting it all started," he said.

For more information about biodiesel fuel, see this link: http://www.biodiesel.org/buyingbiodiesel/retailfuelingsites/default.shtm

Bravo Zulu

Leadership award winners

Three inspirational Coast Guard leaders received some of the Coast Guard's most prestigious leadership awards in a ceremony April 21 at Coast Guard Headquarters.

Norma Bullock, of Coast Guard HQ (G-WPC-3), received the first **George R. Putnam Inspirational Leadership Award**. During her 22 years of Coast Guard service, Bullock has been a mentor and distinguished role model for civilian and military employees. Her absolute dedication to the success of others is fundamental to her leadership philosophy. Bullock's career work in the civil rights program and the workforce development and sustainment division positioned her well to help and inspire others.

Lt. Cmdr. Adrian West of Group Mayport, Fla., received the **Capt. John G. Witherspoon Inspirational Leadership Award**. West effectively delegated a large degree of task management and control to his department heads. The crew viewed this as a sign of trust and appreciation, and continues to respond to his actions, requests and direction without question or hesitation. He has also made visible efforts to speak with every member, listening to concerns, offering guidance or finding solutions. Furthermore, during the 2004 hurricane season, he organized the evacuation of active duty members and dependents to a designated shelter. To keep the families feeling informed and secure, he directed the crew to establish a field galley, clinic and briefing schedule.

DCC Travis Lovvorn of Group Humboldt Bay, Calif., received the **MCPO Angela McShan Inspirational Leadership Award**. Upon assignment to Group Humboldt Bay, Lovvorn took on a significant challenge in the upkeep of an aging infrastructure. Through his managerial excellence and leadership, he turned the inexperienced junior housing maintenance personnel into an effective team, infusing them with a proactive attitude toward project ownership. This shift changed the 124 coast Guard-owned houses from "an OK place to live" to "an excellent place to raise a family."

Coast Guard Attaché Spouses

Can you imagine living overseas in the service of the United States? Being in a unique situation where you and your spouse share in representing the United States and its defense forces to a foreign government and its military services? Where your spouse's contributions to the team are frequently as valuable as yours? Such an opportunity does exist with assignments in the Coast Guard Attaché program at American embassies in Canada, Colombia, Dominican Republic, Ecuador, Jamaica, Malta, Mexico, and Venezuela.

As "goodwill ambassadors," COGATT spouses are considered key partners in the Defense Attaché program by participating in representational events such as national ceremonies and military changes of command by the host nation. Additionally, the extensive social interaction with host nation officials and other countries' attachés provides a rarely-experienced opportunity to gain in-depth insights into foreign cultures and governments.

If this sounds interesting, but maybe a bit daunting, you should know that when a Coast Guard officer enters the training pipeline for assignment as a COGATT, if married, his or her spouse is also strongly encouraged to participate in much of the training. Currently, approximately 70% of spouses voluntarily attend some training before departing for American embassies throughout the world.

Spouses voluntarily take time away from their jobs and families to participate in training an average of three days a week for a period of 13 weeks at the Joint Military Attaché School, located at Bolling Air Force Base in Washington. About half of the spouse's training is spent in the same classroom, learning the same subjects as the service member. The attaché program recognizes the value of including spouses in the training, and helps supplement child care expenses so those with small children can more flexibly attend training evolutions. Spouses often spend additional time in language training so they will be able to speak to their host nation's citizens in their native language.

A COGATT in South America said he was surprised at the level of emphasis placed on having his spouse know the specifics of the job he'd be performing, coupled with the role they, as spouses, could play. It was the first time in his career that spouses have been literally invited (and, he emphasized, not obligated) to participate in a job that is fun, challenging and exciting, as well as important.

COGATT spouses frequently host representational functions in their own homes, offering chances to build on professional relationships, establish friendships and offer some American hospitality to their hosts.

For more information on this exciting and unique program, please contact Cmdr. Ted Tyson at (202) 267-6633 or Lt. Christy Howard at (202) 267-6635.

COMDT (CG-2)

Housing
Barracks are available for E-6 and below at Group Portland. Living on the economy generally costs between $500 and $1200 in rent.

Education
The University of Southern Maine is located in Portland, and Southern Maine Technical College is in South Portland.

Facilities
Group Portland offers a dining facility, all-hands club, a fitness room, and outdoor basketball and tennis courts. All Coast Guard personnel receive free memberships to the local YMCA.

Weather
Summers here have temperatures between the 60's and 80's. Winter temperatures generally range from the 20's to the 40's, with and average annual snowfall of 70 inches.

Greetings from CGC Jefferson Island

The CGC Jefferson Island is homeported at Group Portland in South Portland, Maine. The CGC Jefferson Island was constructed at Bollinger Machine Shop and Shipyard in Lockport, La., and commissioned Aug. 16, 1991. Able to maintain speeds in excess of 26 knots and highly maneuverable, the Jefferson Island is the 40th of the 110-foot island class patrol boats. The Jefferson Island's namesake is located in the Chesapeake Bay along the shore of Maryland. The cutter's crew consists of two officers and 13 enlisted members with diverse rates. A busy operational tempo challenges the crew to be involved in a variety of shipboard evolutions, providing opportunities for greater responsibility and professional development than at most larger units.

The Jefferson Island's primary missions are search and rescue and the enforcement of federal fishery laws in the demanding and sometimes unforgiving North Atlantic. These waters are home to rich lobster, scallop and cod marine resources. Additionally, the Jefferson Island conducts homeland security patrols in both Boston and New York City.

The Jefferson Island's homeport is two hours north of Boston and is collocated at Group Portland with Station South Portland, Aids to Navigation Team South Portland, CGC Marcus Hanna, and CGC Shackle.

The area in and around Portland is typified by friendly people, lots of summer and winter activities, and some of the most beautiful forests, mountains and coastlines in the country. This area is truly family-friendly and was recently voted the number one city in the United States to raise children. Portland is home to two minor league sports teams, the Portland Seadogs (the "AA" farm team for the Boston Red Sox) and the Portland Pirates (an affiliate of the Washington Capitals hockey team). In addition to the professional sports, Sports Illustrated named Portland as Maine's Sports Illustrated Sportstown for having the state's best community youth sports programs and consistently producing the majority of the secondary school state championship sports teams. Additionally, Portland has a thriving downtown business and entertainment community.

The areas surrounding Portland provide many outdoor activities such as hiking, bike riding, camping, hunting, both fresh and salt water fishing, and cross-country and downhill skiing. Famous Acadia National Park is located four hours northeast, and Mt. Washington, in the beautiful White Mountains, is approximately two hours northwest of Portland.

A billet aboard the Jefferson Island provides a great mix of work and recreation time, and the Portland area allows for an ideal combination of city and countryside amenities. If you are looking for a home that seems like a vacation and want to feel the accomplishment of being an integral part of a team meeting the demands and rewards of an assignment on a patrol boat, join us on JI.

Story by Lt. Cmdr Scott Keister, CGC Jefferson Island, photo by BM3 Mark Brennan, ANT South Portland

PREPARE TO BECOME COMPLIANT

GM2 Brett Salter, of MSST 91103, fast-ropes to the deck of the CGC Narwhal during a training exercise March 4. One of the special teams contained in the Los Angeles-based MSST is the non-compliance boarding team.

Photo by CWO Lance Jones, PADET Los Angeles